In the same number of the *Deutsche Med. Zeitung* an abstract of some remarkable observations by Giulio Dozzi is given. Two cases are mentioned in which blood was transfused into the cavity of the peritoneum, one of which ended fatally in twenty-four hours, the other after ten days. Unfortunately, no other particulars are given. This operation has been done twenty-seven times in Italy, four times with fatal ending; and in two cases there was complete restoration to health. The apparent benefit from this proceeding was in most cases not lasting; and the operation had to be repeated at definite intervals, which, as the earlier cases seemed to give rise to no dangerous symptoms, it was thought could be safely done. But the good results in the first cases were not maintained. It would appear from what follows that the intra-peritoneal injection was used to overcome the anæmia of chronic affections, for, looking to the lessening success of this method of treatment, Dozzi asked himself whether the introduction of similar quantities of blood into the intestinal canal might not be productive of less brilliant but more useful results. Four cases were experimented on. The first was a boy aged thirteen years, brought very low by pellagra; a litre and a half of blood was injected eight times in a fortnight, with complete restoration of health. The second instance was of much the same kind, and eleven enemata of blood were given. The third was the case of a woman aged forty years, suffering from splenic leukæmia; here twenty-eight injections were given in two months; the patient greatly improved, and the spleen was reduced in size. The last was also a case of leukæmia, in which thirty introductions of blood were performed, with slow but sure improvement, the spleen lessening in size, and finally the blood returning to its normal state. The blood, injected by an enema apparatus, was taken from sheep or oxen whilst being slaughtered; it was defibrinated, and kept warm, if necessary, in a water-bath, the quantity used varying from one litre and a half to two litres. The patient gradually became able to retain this large quantity. We are warned that too much pressure must not be used, lest the blood should get into the higher parts of the alimentary tract, where it would be rather digested than absorbed. In this country we know practically nothing of the intra-peritoneal method of injection, but we should have thought that the procedure could scarcely be regarded as beneficial, or even as harmless. Enemata of blood may be nutrient, but they cannot be called transfusions in the ordinary sense of the term, and we confess to a doubt whether blood can be simply absorbed, even from the large bowel; further, this method of treatment was practised on cases widely different from those of acute anæmia. If such modes of administering the blood of animals be of therapeutical value, they probably are not so by such direct means as Dozzi seems to suppose. Moreover, because diseases get well whilst a certain treatment is in progress, the success need not depend on that treatment. Lastly, the facts given are not sufficient to prevent some doubt of the accuracy of the diagnosis of splenic leukæmia in the above instances.—*Med. Times and Gaz.*, Jan. 20, 1883.

MEDICINE.

Rare Complications of Enteric Fever.

Abscess in the liver, occurring in the course of typhoid fever, has been recorded once by Hudson, and pyæmic deposits have been noticed once each by Louis and Frerichs. Murchison has seen a yellowish substance in the liver, probably of the nature of an infarct. Von Sidlo has put on record a probable case of hepatic abscess. So far as we know, these are all the instances in which this affection has been observed as an epiphenomenon in the course of what the Germans call "abdominal typhus." A fresh example is afforded by the publication of a case (*Berliner Klin. Woch.*, No. 51) by Dr. Asch, late assistant at the Strasburg Clinic for Children. If the hepatic disease be uncommon in adults, it appears to be even more so in children. Von Sidlo's case affected a girl aged ten years. The present example occurred in a boy aged twelve years, who suffered from a fairly severe attack of enteric fever. The course of the affection was of the usual uninterrupted character until the twenty-first day, when vomiting occurred, and this symptom was repeated on the next few days. On the twenty-seventh day of the illness there was a sharp rigor with a high temperature (106° Fahr.); this was followed two days later by severe pain in the right of the epigastrium; there was much tenderness just below the right costal margin, and here there was evidently a tumour whose characters it was not easy to diagnose owing to the hyperæsthesia. No fluctuation was felt; the spleen was not enlarged; there was no jaundice, nor any fulness of the epigastric veins. The rigor was not repeated. There was hectic fever with profuse sweats and faintings. Death happened on the thirty-fifth day of the disease. According to the reporter, the diagnosis lay between loculated purulent peritonitis and hepatic suppuration. The post-mortem examination revealed typhoid ulceration of the intestines which had healed; suppuration of the lymphatic glands in the neighbourhood of the ileo-cæcal region; and several (eight to ten) pyæmic abscesses in the right lobe of the liver, purulent infection having doubtless spread along the mesenteric veins into the hepatic ramifications of the portal system. Opponents of the doctrine of infection would probably interpret the suppuration as a spontaneous formation of pus due to general conditions, but we think the infective view much more likely to be the true one in this case.—*Med. Times and Gaz.*, Jan. 6, 1883.

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Orchitis in Typhoid Fever.

Orchitis is one of the rarest complications of typhoid fever. So uncommon is it that its occurrence is not even mentioned in Murchison's classical account of the disease. Nevertheless a good many cases have been lately recorded. An instance (of doubtful nature) was described by Bouchut in 1867; and Dr. Duffey observed in the same year, at Malta, no less than eighteen examples of this complication of Maltese fever. Since then a number of cases have been observed in France, and at the beginning of last year its occurrence in the Mediterranean fever was described in our columns by Ellis. Another example has been lately published in *L'Union Médicale* by M. Sevestre, who has added some interesting comments on the complication. The patient had suffered from a severe attack of typhoid, of ordinary type, and was in full convalescence, free from fever, walking about the ward, when he suddenly experienced considerable pain about the groin, and it was found that the right side of the scrotum was reddened, and the testicle swollen and painful. The epididymis was not involved, but the spermatic cord was slightly painful. The left testicle was normal. There was no urethral discharge. The inflammation gradually subsided, and had disappeared at the end of six days. The affection usually comes on in the same sudden manner as in this patient. In most other cases the onset occurs during convalescence—three, six, ten, and even twenty days after the cessation of pyrexia. In no recorded cases had any complication accompanied or followed the fever to which the orchitis could be referred. The onset of the testicular inflammation is usually attended with a return of fever, and the temperature may even rise to 103° or 104° F., the pulse to 120, and violent rigors may occur. In such a case, especially if the local pain is slight, the physician may think he has to do with a relapse of the typhoid, and in a case of unexplained pyrexia during convalescence from this disease the testicle should always be examined. In very rare cases the orchitis comes on before the primary fever is over. When the pain is slight it may only amount to a sense of uneasiness in the testicle, which is not always exaggerated by pressure. When severe it does not amount to a very intense degree, and is never neuralgic in character. The inflammation is always unilateral, and the epididymis is never involved. It appears to be more frequent on the right side than on the left (in seven out of nine observations). In the majority of cases (eight out of twelve) the affection is trifling; the inflammation does not go beyond the congestive stage, and it ends in from six to ten days. Occasionally even this degree is not attained, and transient hyperæmic swelling alone is noted. Sometimes its course is less benign; the local inflammation attains a considerable degree of intensity, and pus may be formed, and the suppuration may go on to complete destruction of the organ. Moreover, in the cases which run a mild course the affection may leave a persistent induration about the epididymis, and in one case atrophy of the testicle ensued. The pathology of this complication is still obscure. That it should recur especially in certain epidemics affords no explanation of its origin. Of the theories proposed, that it is a rheumatic inflammation, or one allied to the inflammations which follow scarlatina, or that it is due to a thrombosis in the spermatic vein, none appear satisfactory.—*Lancet*, Dec. 9, 1882.

Acute Rheumatism.

Karl Vohsen (*Jahrb. f. Kind.*, xix. 1) in an interesting article discusses first the many theories as to the etiology of rheumatism, finds most of them untenable or unsupported by any definite facts, but leans rather to the belief that it is an *acute infectious disease*, due probably to micrococci in the blood. The many complications are discussed in relation to this point.

Childhood suffers from all the complications of acute rheumatism which befall adults. Paralysis of the muscles of the eye is the only one the author has not seen in children. But still rheumatism in children has its own characteristics. The severity and duration of the pain are less on the average than in adults, the duration in adults being two to three weeks, and in children five to eighteen days. The complications in children show still greater differences. Chorea, a frequent complication in early years, is exceedingly rare in adults. Heart affections are very much more frequent in children. From his own cases and the records of many others the author finds that the heart is affected in nearly fifty per cent. of cases in children. This complication is as apt to occur in mild cases as in severe ones; in fact, some authors think it more frequent in the subacute cases.

The author then analyzes twenty cases which had recently come under his notice. The ages were between nine and fourteen years No deductions as to hereditary influence or sex could be fairly drawn. In nine cases there was endo- or pericarditis. In none of these was the fever at any time above 103.2° F., and in one case there was no fever.

Swelling of the joints was observed in three cases. The pain was severe but of short duration. In all cases the salicylate of soda proved promptly effective against the affection of the joints, but had no effect on the development of the cardiac complications. These occurred in about half of all the cases. The mitral valves and the pericardium were most frequently attacked. The lighter forms of rheumatism seemed especially to predispose to the heart troubles, making examination of the heart necessary in all cases.

As to why the heart is affected in children more often than in adults the author can offer no explanation. Anatomy and physiology give us no theories. The noduli, Jacobi's narrowness of the aorta, and other anatomical points of difference between the child's and the adult's heart have disappeared before the age at which rheumatism is frequent. The author then argues that the best theory to explain it is that rheumatism is an acute infectious disease, and attacks the heart of the child more often on account of the less power of resistance it has. Further. exactly this relation of the heart to acute rheumatism is an argument in favour of its infectious origin. Of forty-five cases of endocarditis in childhood reported by v. Dusch, fifteen were idiopathic, twenty were connected with acute, two with subacute rheumatism, and the remainder were complications of outspoken infectious diseases—scarlatina, variola, syphilis congenita. The acute rheumatism, therefore, so far as the heart complication is concerned, would seem to class itself with these acute diseases. Further, the rheumatism especially causes heart complications because its affection especially attacks synovial membranes, and because there is so marked a parallelism between synovial membranes and the endocardium. All the darkness which surrounds the development and course of acute rheumatism is not removed by the supposition of a specific virus, but the author claims that not only has the theory good facts for its support, but also it explains more of the symptoms and complications than any other theory which has been offered.—*Amer. Journ. of Obstet.*, March, 1883.

Diabetes Insipidus of Nervous Origin.

An instance of the connection between diabetes insipidus and disturbance of the central nervous system, recently recorded by Flatten, is of much importance not only to the pathologist, but to the physiologist, as it confirms certain previous observations respecting the localization of the urinary centres or nervous tracts (*Archiv für Psychiatrie*, XIII. 3, S. 671). The case was of traumatic origin. A man, aged twenty-two, sustained a severe injury to the left side of the neck and the occipital region, with temporary loss of consciousness, variable diplopia, and impairment of hearing on the right side. Almost immediately after the accident, polydipsia and polyuria set in; and later on boils made their appearance. When seen by Flatten, the man was found to be suffering from complete paralysis of the left external rectus, and partial paralysis of the right external rectus. Hearing was lost at the external meatus of the left side, whilst sounds were conducted through the structures of the head. There was neither sugar nor albumen in the urine, which amounted to twelve litres (423 ounces) per diem. Iodide of potassium was exhibited internally, and mercurial ointment rubbed into the neck, whereupon the polyuria decidedly diminished. Flatten's diagnosis of the locality of the lesion was that it was situated close under the nucleus of the left sixth nerve, which it destroyed, whilst it extended across the middle line and affected the nucleus of the right sixth nerve; but confessedly this diagnosis did not account for the peculiar disturbance of hearing. It is a fact of the greatest possible interest that the present case is the third instance on record of the association of traumatic polyuria with paralysis of the sixth cranial nerve.—*Med. Times and Gaz.*, Feb. 10, 1883.

Muscular Spasm at the Commencement of Voluntary Movements.

Under the above title, a very interesting and critical study is made of a disease hitherto undescribed in France, and almost, if not quite, unrecognized in this country, by MM. Gilbert and Marie (*Archives de Neurologie*, vol. v., No. 13). The patient upon whom their observations were made was a native of Cairo, aged twenty-six, the essential feature of his disease being that whenever he put any group of muscles into action they became seized with tetanic rigidity, lasting two or three seconds, and passing off gradually, not to reappear whilst he kept on using the same set of muscles: thus, in going upstairs his legs became rigid at once; but after he had mounted a few steps the rigidity disappeared, and he was able to go up the rest like any ordinary person. His arms were affected in a similar manner, as also the muscles of his eyeballs, tongue, and larynx. The muscles of his face were not affected, and he had never had any trouble in deglutition, defecation or micturition. During the spasm the affected muscles were notably increased in resistance and stood out in relief. He was a well-nourished, muscular man. The muscles were not hypertrophied, but were unusually sensitive to pressure. Myoidema was obtained in the gastrocnemii, and to a less degree in the quadriceps. The tendon-reflexes were natural, and passive movements did not provoke rigidity. There was no lordosis. The chief fact brought out by the electrical examination was the readiness with which the contraction produced by the current became tetanic, and also the way in which spasm was developed in the muscles adjoining that acted upon. He seems to have been an intelligent man, though somewhat deficient in memory, and with a rather violent temper. There was nothing noteworthy in his family history. The muscular affection was believed to have commenced when he was about ten years old. Amongst the various cases of this disorder that the authors have succeeded in collating, the most interesting series is that published by Dr. Thomsen, who was himself the subject of the affection, and who had been enabled to trace it in his own family through three generations. The history of this family is so interesting that we need make no apology for giving it here. Dr. Thomsen's great-grandmother died of puerperal mania in her first confinement; her two sisters had some mental affection late in life; her son (the narrator's grandfather) also had some mental affection in old age, and he left four children, the two younger of whom had this muscular rigidity in a marked degree, and were also deficient in intellect. The two elder were healthy; one of these was the narrator's mother. Of her thirteen children, no less than seven were affected with this muscular rigidity. In the next generation it has shown itself in six out of thirty-six children (including Dr. Thomsen's own four, all of whom had it, one even showing it though it died in infancy). After such a history as this, the influence of heredity cannot be denied. In discussing the nature of this affection, the authors incline to the view that it is of muscular origin, notwithstanding the fact that two observers have failed to detect any morbid state of the muscular fibres. In conclusion, they point out the objections to one of the names that has been given to it, viz., "spasmodic hypertrophic spinal paralysis," inasmuch as there is no hypertrophy and no paralysis, and no evidence to support the idea that it is of spinal origin.—*Med. Times and Gaz.*, Feb. 24, 1883.

Treatment of Epilepsy with Sodium Nitrite.

At the meeting of the Royal Medical and Chirurgical Society, held on Nov. 28th, Dr. Chas. H. Ralfe claimed the credit of first introducing this drug for the treatment of epilepsy for Dr. Law, of Hastings, who was the first to administer it, and who had fully described the theoretical reasons which led him to employ it, together with an account of its physiological action, in the *Practitioner* for June of the current year. Sodium nitrite in its action resembled nitrite of amyl and nitro-glycerine. It had one advantage over these remedies for the treatment of epilepsy; its effects were produced more slowly, and were more permanent in character. The dose should just fall short of producing full physiological effect. The author advised that care should be taken to ascertain the purity of the drug, as many samples contained an admixture of sodium nitrate. The details of seventeen cases treated by the author in the out-patient department of the London Hospital were given. Of these seventeen cases, three received no benefit, four improved slightly, one was a doubtful case, whilst nine were benefited decidedly. Of all the cases, eight, previously to treatment with sodium nitrite, had been treated with bromide of potassium. Of these, three had improved under its use, and went back when the medicine was changed to sodium nitrite. Of the other five, the bromide treatment was inefficacious from the first in three cases; and in two, though it had done good for some time, it was losing its effect, and the patients were suffering from "bromism." In four of these cases, decided improvement followed the change to sodium nitrite, and the other improved to a lesser degree under its use. Nine of the patients commenced treatment directly with sodium nitrite. Of these, the disease in four was of long standing, and probably the patients had already been subjected to a course of bromide of potassium at other hospitals. Of these, two improved under sodium nitrite, and two received decided benefit. The remaining five cases were all tolerably recent ones. Of these, three received decided benefit, one slightly improved, and one was a doubtful case. Among the cases that received decided benefit, the longest exemption from any kind of epileptiform seizure, was one who went eleven weeks without an attack—four weeks whilst under treatment, and seven weeks after leaving off the medicine. Another patient went eight weeks without an attack, and had no relapse at the time he was last seen; he was still an out-patient, and taking the medicine. Previously to commencing treatment, he had on an average three fits a fortnight, and they were increasing. Another remained free for a period of four weeks, and had no recurrence when he gave up his out-patient letter. Another, who had a fit on an average every week, after taking the medicine was free for five weeks. The same result obtained with another, who was free for one month. The author drew the following conclusions from these results. 1. Those cases in which bromide of potassium is of marked service are not generally suitable for a trial of sodium nitrite. 2. Those cases in which bromide of potassium does not agree well from the first, will probably be found to improve under sodium nitrite. 3. To patients who have taken bromide some time, and in whom the drug is apparently losing its effect, or who are suffering from bromism, sodium nitrite is useful as a change of medicine. 4. There are a class of cases, consisting chiefly of minor seizures or convulsive attacks, such as often occur in young persons usually at night, in which sodium nitrite is especially beneficial.—*Brit. Med. Journal*, Dec. 2, 1882.

Nervous Derangement in Diabetes.

The subject of diabetic coma, and its supposed connection with lipæmia, fatty embolism, and acetonæmia, has been lately much discussed, while less attention has been given to many other signs of disturbance of the cerebro-spinal nervous system which are apt to occur in that disease. We do not intend in the present article to take up the subject of diabetic coma, further than to say that it is by no means proved, as some of the most recent writers on this subject seem inclined to assume, that the presence of acetone, or the superabundance of fat in the blood, is really the cause of that peculiar form of dyspnœic coma, which in a number of instances terminates the malady in such a striking manner; but the pathogeny of this peculiar condition will probably be found to be connected with the general exsiccation of the tissues, and more especially of the nervous matter, which is found in diabetic subjects, and to which attention has been more particularly drawn by Ranke.

On the present occasion we intend to refer to some other forms of neurotic disturbance liable to crop up in the course of diabetes, and to which an able and laborious essay by Bernard and Féré in the *Archives de Neurologie* for November, has been devoted. These symptoms occur in the sphere of motion, general and special sensibility, and the intellect, while trophic disturbances are on the whole rare; and they have all one feature in common, viz., that they appear most unexpectedly. They seem, on the whole, to depend less on the diabetes itself than on the general nutritive changes in the system which are determined by the glycosuria. Analogous symptoms are not unfrequently observed in patients who are subject to uric acid diathesis, which is so closely allied to diabetes; moreover, they appear often when the quantity of sugar in the urine has diminished, and diabetic patients are occasionally found to succumb to cerebral symptoms just at the moment when they are no longer glycosuric.

In the sphere of motility, the earliest, most frequent, and diagnostically speaking, the most important symptom is a sensation of fatigue, lassitude and utter want of muscular energy. This does not depend on muscular emaciation, which is one of the later symptoms of the malady; but comes on, without apparent cause, either in the lower extremities or the loins, and may be severe enough to raise suspicion of spinal disease. There is difficulty in walking, the movements are slow, awkward, and without vigour; and the degree of the trouble varies a good deal, according to treatment, diet, etc. This lack of power may occur quite suddenly after a slight injury, and it has been attributed to defective nutrition of the muscles by the saccharine blood.

Various forms of paralysis are also observed, which are either localized, partial, and incomplete, or there is regular hemiplegia. At first, there may be an attack of apoplexy, with consecutive hemiplegia, which may get well; and there may be a repetition of these symptoms later on. In other cases, the apoplexy proves fatal, or there is simple loss of consciousness without subsequent paralysis, or a bad attack of vertigo. Again, paralysis may come on without being preceded by apoplexy; and hemiplegia of one side may be combined with monoplegia of the other. Monoplegia is, indeed, so frequent in the course of diabetes, that it is always advisable to examine the urine for sugar in such cases. Palsies of this kind may be confined to a limb, or part of a limb; to a single muscle, or a small group of muscles in the face; and they affect frequently the tongue and the muscles moving the eyeball. They may be quite transitory, indeed, last for a few hours only, and are often incomplete.

Difficulty in speaking may be either of the aphasic or the anarthric kind, or be simply owing to general debility combined with dryness of the tongue. Sometimes, there is a more or less complete loss of the memory for words. A temporary kind of aphonia is probably owing to transitory paralysis of the muscles of the larynx. There are not as yet any very conclusive observations on palsies of the muscles of the eye, although Kiwatkowski has recorded a case of paralysis of the fourth nerve in a diabetic patient, and the rectus externus has been found paralyzed under similar conditions.

Another interesting symptom in the motor sphere is loss of the muscular sense, and a consequent tottering gait, especially in the dark. This may be combined with "pins and needles" in the lower extremities, and therefore simulate tabes spinalis or locomotor ataxy. Indeed, one cannot help being struck by the close similarity of many of these symptoms to those of tabes.

Cramps and convulsions are far from common. The former appear generally at an early period of the malady, together with the muscular lassitude. Cramps occur mostly in the lower extremities, and at night, and thus lead to insomnia, in the same way as polydipsia, nocturnal urination, sensations of pricking, tingling, and cold. Sometimes, however, insomnia appears without any of these apparent causes, and should lead us to test the urine for sugar; it is then, indeed, the first sign of disturbed cerebral circulation, and may be the precursor of more serious troubles. Convulsions may be observed, either by themselves, or associated with diabetic coma, or with different kinds of palsies. In the latter case, they are most probably owing to cortical lesions, more especially because they sometimes show the characters of partial monoplegic epilepsy, and alternate with temporary paralysis seated in the same area of the brain. The vertigo which is sometimes observed is probably allied to these epileptiform phenomena.

An important feature of the pathogeny of these cases is, that such palsies may be developed some time before the diabetes appears, as seen by Dr. Pavy, or just when the sugar disappears from the urine, or after it has been completely absent from it for several months consecutively. All the symptoms hitherto mentioned are subject to frequent remissions, which has led some observers to consider them due to congestion; but they may also be explained by limited destruction of certain parts, which are afterwards supplemented by other similar parts. Dr. Dickinson has described lesions in the nervous system of diabetic patients which he looks upon as primary, and as explanatory of all localized morbid phenomena, viz., miliary excavations along the bloodvessels, containing extravasated blood, or crystals of hæmatine, and areas of miliary sclerosis in the brain, as well as in the cord. Subsequent observers have, however, not been able to corroborate these observations, and it seems exceedingly doubtful whether such lesions are really primarily developed.

With regard to sensibility, it is found that complete anæsthesia is rare; local areas of insensibility are, however, sometimes noted, so that hairs may be pulled out without causing any pain to the patient. More frequently there are complaints of tingling, tightness, cold, heat, and numbness, especially in one or both lower extremities, or in the sexual organs. Like the tabetic patient, the diabetic is exceedingly sensitive to external cold. Tactile sensibility may vanish, so that the patient is unable to hold a pin between his fingers without looking at it. Some patients lose the proper sensation of the ground on which they are walking. Pain in the joints, the loins, the haunches, and the back is common, and it seems particularly to invade the neck, where it is felt as a burn or the bite of a dog, and is combined with stiffness of the muscles. This rigidity extends occasionally from the back of the head down to the sacrum. There may also be headache, pressure on the top of the head, and various forms of neuralgia, more especially symmetrical and obstinate sciatica. Lightning-pains, similar to those of ataxy, have likewise been observed, and may, if combined with difficulty in standing, plantar anæsthesia, and areas of hyperæsthesia, lead a hasty observer to the diagnosis of tabes.

Sexual desire is generally in abeyance. In men there is frigidity and impotency, in women actual repugnance to connection. Certain neuroses, such as asthma, angina pectoris, and exophthalmic goitre, may be combined with glycosuria. Deafness is more frequent in the diabetic than in other persons, and seems sometimes purely nervous, while in other cases it is owing to lesions of the middle ear. Anorexia and perversion of the sense of smell have also been observed.

It is, however, the ocular affections occurring in diabetes which are of the greatest importance for diagnosis and prognosis. A more exact knowledge of the lesions found in the retina of the diabetic will, probably, in time, lead us to a better comprehension of the cerebral symptoms occurring in the same disease.

Diabetic amblyopia may be slight or grave, and may be the first symptom of diabetes. All objects appear to the patient in a kind of yellowish haze, and this is worse after meals. In general, both eyes are unequally affected. In most cases this appears due to paresis of accommodation, and the ophthalmoscopic examination of the fundus of the eye shows this to be normal, or, at most, the presence of a slight congestion of the optic disc. Glycosuric retinitis occurs in severe cases, chiefly towards the end, and does not appear to differ materially either in objective or subjective symptoms from albuminuric retinitis. Further researches on the finer changes of the retina in diabetes are most desirable.

The intellect is generally below par, the memory impaired; there is much despondency and apathy, interrupted by terrifying dreams, hallucinations and delusions, which may lead to suicide. At other times the patient is simply passive, hates to be disturbed, and cares for nothing but to be left alone. This intellectual decay often coincides with gradually progressive physical debility; but general paralysis of the insane and other similar affections, which have been occasionally observed towards the end, seem to be mere coincidences.

Trophic disturbances, such as are common in certain diseases of the spinal cord, may occasionally be observed in diabetic patients, such as perforating ulcer, with formation of eschars and copious hemorrhage, localized sweating, atrophy of the skin and adjacent tissues, and muscular atrophy.—*Brit. Med. Journ.*, Dec. 9, 1882.

The Communication of Tubercle by Inoculation and the Pathological Nature of the Lesions resulting therefrom.

Prof. Burdon Sanderson has been making a long series of investigations, from which he draws the following conclusions:—

1. The characteristic product of tuberculosis is not an aggregation of shrivelled particles of irregular form, but a tissue composed of lymph corpuscles held together by a network of hyaline connective substance.

2. There is a close structural analogy between this tissue and that of certain follicular organs belonging to the lymphatic system, *e. g.*, the follicles of Peyer, the ampullæ of the lymphatic glands, etc.

3. All the favourite seats of tubercle are naturally characterized by the presence of this tissue, which, from the analogy stated above, may properly be called *adenoid*.

4. The natural distribution of adenoid tissue in the body is an intimate relation with the lymphatic system. In the great serous membranes (which v. Recklinghausen's discoveries have taught us to regard as walls of lymphatic reservoirs) it forms sheaths round the bloodvessels, or masses of microscopical dimensions and irregular contour underneath the epithelium. In the solid viscera it is distributed here and there in the course of the lymphatic channels.

5. In the peritoneum, tuberculosis primarily consists in the enlargement or overgrowth of these sheaths or microscopical masses of adenoid tissue, and consequently the tuberculous nodules which are formed have the same intimate structure, and stand in the same anatomical relation to the vessels and epithelium. In the viscera the essential lesions also consist, not in new growth, but in overgrowth of pre-existing masses of adenoid tissue.

6. The primary local lesion in artificial tuberculosis, whether the cause be simple wound or specific inoculation, consists in the development at the seat of injury of granulations or nodules which have similar structural characters with those of adenoid tissue elsewhere, but cannot as yet be shown to be in relation with the absorbent vessels.

7. The first step in the dissemination of tubercle consists in its being absorbed

primarily by the lymphatics (which convey it to the lymphatic glands of which they are tributaries), and secondarily by the veins. Having thus entered the systemic circulation, it is distributed universally by the arteries. The serous membranes seem, however, by preference to appropriate it, and from them it extends by contiguity to the superficial parts of the organs which they cover.

8. The final stage of the process consists in the tertiary infection of the glands of each diseased organ, which glands consequently undergo enlargement and induration, and eventually become partially caseous. The enlargement is due to the multiplication of cells in all the tissues of the organ, but more particularly in the alveoli—the hardening to a process of fibrous degeneration—while the caseation consists in slow necrosis of the previously hardened and anæmic parts. From the first the gland is incapable of performing its functions, but it is not until induration commences that the absorbents of the organ to which it belongs are completely obstructed.

9. In the liver of the guinea-pig, and in some other organs, tuberculous tissue undergoes a fibroid degeneration and caseation, the results of which cannot be distinguished from those observed in the normal adenoid tissue of the lymphatic glands and of the spleen.

10. As regards the question of a *specific contagium* of tubercle, we think it very important to note that this is not yet disproved by the facts of traumatic tuberculosis. It still remains open to inquiry whether or not injuries which are of such a nature that air is completely excluded from contact with the injured part are capable of originating a tuberculous process.—*Practitioner*, Dec. 1882.

Paracentesis and Incision of the Pericardium.

Dr. A. PARTZEVSKY (*Mediz. Obozr.*, March, 1882) brought before the Moscow Physico-Medical Society a very interesting case of pericardial effusion, treated by repeatedly performed tapping, and finally by incision of the pericardial sac with subsequent drainage. The author at some length discusses the subject of operative treatment of pericardial effusions, and sums up his own views thus: 1. In a vast majority of cases the operation (that is, puncture and aspiration, and, if they fail, subsequent incision with drainage) is not attended with any danger. 2. It brings rapid relief, and its palliative usefulness is not denied even by the opponents of operative interference in similar cases. 3. In the absence of such complications as tuberculosis, cancer, organic changes of the heart, etc., the operative treatment of non-purulent pericardial effusions may prove successful in the majority of cases. 4. In cases of purulent pericarditis, it is perfectly justifiable to try an early operation, in order to prevent dilatation and fatty degeneration of the heart, which generally supervene here very rapidly.—*London Medical Record*, Feb. 15, 1883.

Intestinal Polypi.

At the meeting of the Pathological Society of London, held December 19, 1882, Mr. BOWLBY brought forward three cases illustrating the varieties of intestinal polypi: 1. In a man, aged sixty-four, who had had no intestinal symptoms, there were found diffuse polypoid growths throughout the colon, commencing just above the ileo-cæcal valve, and extending down to the sigmoid flexure. They were found in the mucous and sub-mucous tissues, and some were pedunculated. It was noteworthy that there was no stricture of the intestine. 2. A polypus removed from the rectum of a girl aged twenty-four, who had had no intestinal symptoms beyond slight constipation. The polypus was attached to the anterior wall of the rectum, about four inches from the anus; it was soft and succulent, and covered everywhere by mucous membrane. It was accidentally ruptured during removal, and some turbid fluid escaped. After removal it weighed two pounds all but an ounce. Its chief interest lay in its size. 3. A polypus of the small intestine occurring in a female child, aged five. He gave the following history of the case: She was seized with pain in the abdomen suddenly one day; next day she passed some blood by the bowels, and during the next few days slime. She was admitted into St. Bartholomew's Hospital, ten days after the commencement of her illness, with a mass protruding from the anus, which eventually came away, and a portion of which was recognized to be the vermiform appendix. After this the child went on well, and left the hospital apparently recovered. Some months later she was brought back with symptoms of congenital syphilis, was readmitted, and died not long afterwards. At the autopsy the cause of death was recognized to be recent peritonitis. On opening the intestine, a polypus of fibrous tissue was found about eight inches from the anus, but evidently in the small intestine, and three inches and a half below this there was a transverse scar completely encircling the gut, where the small intestine, at what might have been the ileo-cæcal valve, had become adherent to the rectum or sigmoid flexure, so that the whole of the colon and cæcum had disappeared by sloughing. There was very slight constriction at the site of the scar. Mr. Bowlby remarked that when a polypus set up intussusception it was usually the part to first present at the anus and be expelled. In this case it must be assumed that the polypus had set up increased peristaltic action of the intestines below it, and had never been actually involved in the invagination itself.—*Med. Times and Gaz.*, Dec. 30, 1882.

Peri-Splenic Abscesses.

In an article on purulent peri-splenic collections, C. Zuber reports (*Rev. de Médecine*, Nov. 1882) two interesting cases in which such purulent collections were found after death, the true character of which had not been suspected during life. In one of the cases the post-mortem revelation was a complete surprise, because no symptoms had been observed calling attention to the left side; and in the other there was an error of diagnosis, as the case had been considered as one of intro-abdominal malignant disease. The notes of these cases are given at length; both had a history of repeated malarial attacks. Following these is a brief consideration of other cases contained in medical literature of this very rare form of disease. The more important points of this essay may be summed up as follows: (1) In the upper portion of the abdomen are found purulent collections, which are called peri-splenic abscesses, although they only touch the spleen at one part of its surface, and are not at all localized in the sub-serous connective tissue of the spleen. They occupy by preference the irregular space bounded by the stomach, the spleen, the colon, and the diaphragm. These collections are the last stage of circumscribed peritonitis, due ordinarily to lesions of the spleen or the digestive tube. The infectious form of splenitis (comprising herein the lesions of malaria), and the round ulcer of the stomach, appear to play the principal rôle in these intra-abdominal abscesses. (2) The purulent collections of digestive origin contain gas, and their character is shown, with remarkable uniformity, by a resemblance more or less complete with pyo-pneumothorax, the more so because they are only separated from the pleura by the diaphragm, which is strongly pushed upward. The nature of these cases of false pyo-pneumothorax will be recognized at first by the existence of grave digestive disorders, and subsequently by the variability, the exaggeration or insufficiency, of the symptoms observed. The collections of splenic origin are scarcely ever characterized by tumefaction and pain of the hepatic region and the general signs of latent suppuration; rarely, by tumours more or less marked or fluctuating. The diagnosis will scarcely be made except by exclusion. (3) Whatever may be the origin, the depth, or the extent of these peri-splenic collections, they are not above the resources of modern surgery. It is this practical point of view which will dominate the question. No effort should be spared in order to determine the existence, and then the nature, of the abscess; and exploratory punctures, either deep or multiple, should not be too much feared. Made methodically and prudently, such explorations bring only an insignificant danger, as the recent literature of hepatic abscess abundantly shows; they alone may be, on the contrary, the point of departure of a truly rational and useful therapeutic method.—*Practitioner*, February, 1883.

SURGERY.

Neurectomy of Inferior Dental.

Dr. SONNENBERG, of Berlin, has instituted a new operation for the excision of a portion of the inferior dental nerve, which he describes in the *Berliner Klinische Wochenschrift* for October 16th. It will be remembered that the nerve in question enters its bony canal on the inner surface of the ramus of the lower jaw, under cover of the internal lateral ligament. Dr. Sonnenberg found in the dead subject that, having the head held strongly backwards, it was possible to reach the inferior dental nerve by a neat incision, which was begun one centimetre and a half in front of the angle of the jaw, and continued along the (in this position) ascending border of the body of the lower jaw for three to four centimetres, as far as the facial artery—an incision which corresponds roughly to the insertion of the masseter muscle. We may say that two centimetres and a half is an inch, as nearly as may be. This being done, the inner surface of the lower jaw-bone must next be cleaned up to the internal lateral ligament, which usually lies about two centimetres and a half from the angle of the jaw; the insertion of the internal pterygoideus must be separated from the bone; the ligament and nerve may now be felt, and with good light the latter can be seen in the bottom of the crateriform wound. Next a strong blunt-pointed hook must be conducted by the finger up to the ligament, and then somewhat upwards along the ascending ramus of the jaw, and at the same time inwards in the direction of the buccal mucous membrane. In this fashion the nerve is hooked up without touching the neighbouring artery, which lies very close to the bone. The lingual nerve is quite to the inner side, and is not meddled with. The inferior dental so secured is very extensible, and can be drawn down towards the angle of the jaw, and a portion easily cut therefrom. The other methods (done either from the mouth, or by trepanning the lower jaw from the outside) are nothing like so good as this new operation, according to the author.

The advantages are enumerated: (1) The wound is the smallest possible; (2) the operation is done comfortably, provided the formal retraction of the head is thoroughly observed; (3) the bleeding is insignificant; (4) the capsule of the submaxillary gland is left intact, and so no burrowing of pus can take place there; (5) the nerve is easily found and brought forward alone; (6) a good piece can be excised, because the nerve can be drawn out so easily; (7) the wound is favourably situate for healing; (8) the scar is small, and in an unobjectionable place.